

SPACECRAFT SYSTEMS

Butane Micropropulsion Module

The Butane Micropropulsion Module uses non-toxic liquefied butane as the propellant, relying on self-pressurization and vaporization to achieve a compact cold-gas propulsion configuration. Integrated with control circuitry, the module supports plug-and-play operation. Its high-precision thrust output enables micro- and nano-satellites to perform fine orbit transfer, attitude control, and station-keeping maneuvers.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS	
Dimensions (mm)	100 × 100 × 100
Mass (g)	900
Total Impulse	200 N·s
Mounting Material	TC4 (Titanium Alloy)
Operating Temperature (°C)	10–30
Storage Temperature (°C)	0–60
Communication Interface	RS-422 / CAN

Quick Overview

The Butane Micropropulsion Module uses non-toxic liquefied butane as the propellant, relying on self-pressurization and vaporization to achieve a compact cold-gas propulsion configuration. Integrated with control circuitry, the module supports plug-and-play operation. Its high-precision thrust output enables micro- and nano-satellites to perform fine orbit transfer, attitude control, and station-keeping maneuvers.

Key Specifications

Parameter	Value
Dimensions (mm)	100 × 100 × 100
Mass (g)	900
Total Impulse	200 N·s
Mounting Material	TC4 (Titanium Alloy)
Operating Temperature (°C)	10–30
Storage Temperature (°C)	0–60
Communication Interface	RS-422 / CAN

Key Features

- Simple and reliable modular structure.
- Pre-packaged and plug-and-play capability.
- Lightweight and energy-efficient design.
- Modular architecture with strong scalability.

Applications

- Used for **micro- and nano-satellite propulsion**, providing **precise thrust control** for orbit transfer, attitude adjustment, and long-term station-keeping.

Documentation & Resources

- [Technical Specifications](#)
- [Applications](#)